

Section 2. Form PTO - 1449 (Modified) (ATTACHMENT)

#2
Conklin

FORM PTO-1449 U.S. DEPT. OF COMMERCE (Modified) PATENT AND TRADEMARK OFFICE		ATTY DOCKET NO. BTI-41	SERIAL NO. 09/441,318
		APPLICANT Conklin et al	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT		FILING DATE 11/16/99	GROUP 1649 32

U.S. PATENT DOCUMENTS

Exam Initial		DOCUMENT NUMBER	DATE	PATENTEE	CLASS	SUB	FILING DATE IF APPROPR

FOREIGN PATENT OR PUBLISHED FOREIGN PATENT APPLICATION

Exam Initial		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB	TRANSLATION YES NO

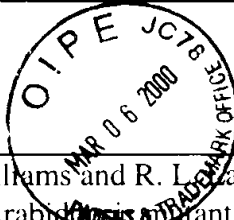
OTHER PRIOR ART

Exam Initial		Author, Title, Date, Pertinent Pages, Etc
ARK	AA	Barber, G. A., 1971 Synthesis of L-galactose by plant enzyme systems. Arch Biochem Biophys 147 : 619-623.
	AB	Becker, D., E. Kemper, J. Schell and R. Masterson, 1992 New plant binary vectors with selectable markers located proximal to the left T-DNA border. Plant Mol Biol 20 : 1195-1197.
	AC	Bonin, C. P., I. Potter, G. F. Vanzin and W.-D. Reiter, 1997 The <i>MUR1</i> gene of <i>Arabidopsis thaliana</i> encodes an isoform of GDP-D-mannose-4,6-dehydratase, catalyzing the first step in the <i>de novo</i> synthesis of GDP-L-fucose. Proc Natl Acad Sci USA 94 : 2085-2090.
	AD	S.J. Clough and A.F. Bent, 1998. Plant J. 16 : 735-743.
	AE	Conklin, P. L., and R. L. Last, 1995 Differential accumulation of antioxidant mRNAs in <i>Arabidopsis thaliana</i> exposed to ozone. Plant Physiol 109 : 203-212.
	AF	Conklin, P. L., S. N. Norris, G. L. Wheeler, N. Smirnoff, E. H. Williams and R. L. Last, 1999a Genetic evidence for the role of GDP-mannose in plant vitamin C biosynthesis. Proc Natl Acad Sci USA, Vol. 96, pp. 4198-4203.
	AG	Conklin, P. L., J. E. Pallanca, R. L. Last and N. Smirnoff, 1997 L-Ascorbic acid metabolism in the ascorbate deficient mutant <i>vtc1</i> . Plant Physiol 115 : 1277-1285.
ARK	AH	Conklin, P. L., S. A. Saracco, S. R. Norris and R. L. Last, 1999b Vitamin C-deficient Arabidopsis thaliana mutants isolated using a novel vitamin C detection method. Genetics, in preparation.

Identification of ascorbic acid-deficient Arabidopsis thaliana mutants Genetics, 2000 154: 847-856.

Steve A. Trudel

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AR1	AI	Conklin, P. L., E. H. Williams and R. L. Last, 1996 Environmental stress sensitivity of an ascorbic acid-deficient <i>Arabidopsis</i> mutant. <i>Proc Natl Acad Sci USA</i> 93 : 9970-9974.
	AJ	Dawson, R. M. C., Elliot, D. C., Elliot, W. H. & Jones, K. M. (1986) in <i>Data for Biochemical Research, Third Edition</i> (Oxford Univ. Press, London), pp. 485-486.
	AK	Hashimoto, H., A. Sakakibara, M. Yamasaki and K. Yoda, 1997 <i>Saccharomyces cerevisiae</i> VIG9 encodes GDP-mannose pyrophosphorylase, which is essential for protein glycosylation. <i>J. Biol Chem</i> 272 : 16308-16314.
	AL	Karpinski, S., C. Escobar, B. Karpinska, G. Creissen and P. M. Mullineaux, 1997 Photosynthetic electron transport regulates the expression of cytosolic ascorbate peroxidase genes in <i>Arabidopsis</i> during excess light stress. <i>Plant Cell</i> 9 : 627-640.
	AM	Kishida, E., Y. Nishimoto and S. Kojo, 1992 Specific determination of ascorbic acid with chemical derivatization and high-performance liquid chromatography. <i>Anal Chem</i> 64 : 1505-1507.
	AN	Lamb, C., and R. A. Dixon, 1997 The oxidative burst in plant disease response. <i>Annu Rev Plant Physiol Plant Mol Biol</i> 48 : 251-275.
	AO	Landry, L. G., C. C. S. Chapple and R. L. Last, 1995 <i>Arabidopsis</i> mutants lacking phenolic sunscreens exhibit enhanced ultraviolet-B injury and oxidative damage. <i>Plant Physiol</i> 109 : 1159-1166.
	AP	Levine, A., R. Tenhaken, R. Dixon and C. Lamb, 1994 H ₂ O ₂ from the oxidative burst orchestrates the plant hypersensitive disease resistance response. <i>Cell</i> 79 : 583-593.
	AQ	Mächler, F., M. R. Wasescha, F. Krieg and J. J. Oertli, 1995 Damage by ozone and protection by ascorbic acid in barley leaves. <i>J. Plant Physiol</i> 147 : 469-473.
	AR	Menser, H. A., 1964 Response of plants to air pollutants. III. A relation between ascorbic acid levels and ozone susceptibility of light preconditioned tobacco plants. <i>Plant Physiol</i> 39 : 564-567.
	AS	Ôba, K., S. Ishikawa, M. Nishikawa, H. Mizuno and T. Yamamoto, 1995 Purification and properties of L-galactono-g-lactone dehydrogenase, a key enzyme for ascorbic acid biosynthesis, from sweet potato roots. <i>J Biochem</i> 117 : 120-124.
	AT	Østergaard, J., G. Persiau, M. W. Davey, G. Bauw and M. Van Montagu, 1997 Isolation of a cDNA coding for L-galactono-g-lactone dehydrogenase, an enzyme involved in the biosynthesis of ascorbic acid in plants. <i>J Biol Chem</i> 272 : 30009-30016.
	AU	Pandya, N., and S. J. Bedi, 1990 Induction of pollution resistance in tomato. <i>Adv Plant Sci</i> 3 : 171-177.
	AV	Smirnoff, N., 1996 The function and metabolism of ascorbic acid in plants. <i>Ann Bot</i> 78 : 661-669.
	AW	Smirnoff, N., and J. E. Pallanca, 1996 Ascorbate metabolism in relation to oxidative stress. <i>Biochem Soc Trans</i> 24 : 472-478.
	AX	Somerville, C. R., S. Turner, W.-R. Schieble, W. Lukowitz, T. Nickle, D. Meinke, S. Cutler and T. Richmond, 1998 Genetic dissection of cell wall composition in <i>Arabidopsis</i> . <i>Plant Physiol</i> 5 : 500001.
	AY	Szumilo, T., R. R. Drake, J. L. York and A. D. Elbein, 1993 GDP-mannose pyrophosphorylase. <i>J Biol Chem</i> 268 : 17943-17950.
	AZ	Wheeler, G. L., M. A. Jones and N. Smirnoff, 1998 The biosynthetic pathway of vitamin C in higher plants. <i>Nature</i> 393 : 365-369.
AR1C	BA	Wu, G., B.J. Shortt, E. B. Lawrence, E. B. Levine, K.C. Fitzsimmons and D. M. Shah, 1995, Disease resistance conferred by expression of a gene encoding H ₂ O ₂ -generating glucose oxidase in transgenic potato plants., <i>Plant Cell</i> 7 : 1357-1368.

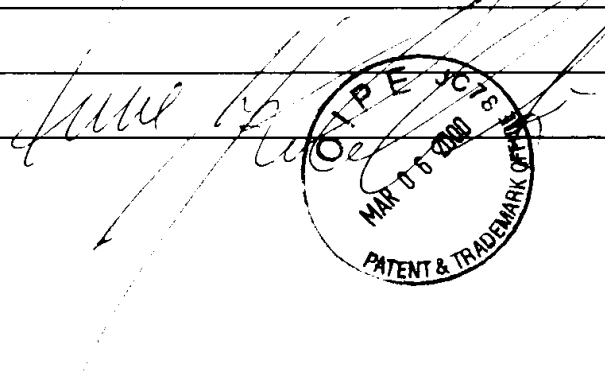
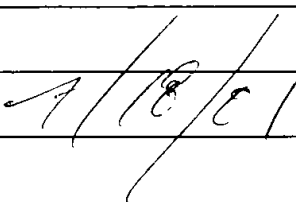
Steve H. H. H. H.

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ARK	BB	HAUGHN, G. W., and C. SOMERVILLE, 1986 Sulfonyleurea-resistant mutants of <i>Arabidopsis thaliana</i> . Mol. Gen. Genet. 204 : 430-434.
	BC	KUTNINK, M. A., W. C. HAWKES, E. E. SCHAUS and S. T. OMAVE, 1987 An internal standard method for the unattended high-performance liquid chromatographic analysis of ascorbic acid in blood components. Anal. Biochem. 166 : 424-430.
	BD	LI, J., J. ZHAO, A. B. ROSE, R. SCHMIDT and R. L. LAST, 1995 Arabidopsis phosphoribosylanthranilate isomerase: molecular genetic analysis of triplicate tryptophan pathway genes. Plant Cell 7 : 447-461.
	BE	MITTON, K. P., and J. R. TREVITHICK, 1994 High-performance liquid chromatography-electrochemical detection of antioxidants in vertebrate lens: glutathione, tocopherol, and ascorbate. Meth. Enzymol. 233 : 523-539.
	BF	NICKLE, T. C., and D. W. MEINKE, 1998 A cytokinesis-deficient mutant of Arabidopsis (<i>cyt1</i>) characterized by embryonic lethality, incomplete cell walls and excessive callose accumulation. Plant J. 15 : 321-332.
	BG	SHARMA, Y. K., and K. R. DAVIS, 1994 Ozone-induced expression of stress-related genes in <i>Arabidopsis thaliana</i> . Plant Physiol. 105 : 1089-1096.
	BH	Jayarathne, P., Bronner, D., MacLachlan, P. R., Dodgson, C., Kido, N. & Whitfield, C. (1994) J Bacteriol. 176 , 3126-3139.
	BI	Griffin, A. M., Poelwijk, E. S., Morris, V. I & Gasson, M. J. (1997) FEMS Microbiol. Letts. 154 , 389-396.
	BJ	Sa-Correia, I., Darzins, A., Wang, S.-K., Berry, A. & Chakrabarty, A. M. (1987) J Bacteriol. 169 , 3224-3231.
	BK	Loewus, M. W., J. A. Hick, D.L. Bedgar and F.A. Loewus, 1987, Plant Physiol 83S :126
	BM	Report for Putative Mannose, July 1999, Sequence for putative mannose-1-phosphate guanyltransferase T517.7
	BL	Nucleotide Query, 1999, Arabidopsis thaliana chromosome II BAC T517 genomic sequence, .
	BM	Barber, G., 1979, Observations on the Mechanism of the Reversible Epimerization of GDP-d-mannose to GDP-l-GALACTOSE BY AN Enzyme of <i>Chlorella pyrenoidosa</i> , Jnl. Of Biological Chem., Vol. 254, pp 7600-7603.
	BN	Burget, E.G. and Reiter, W., 1999, The mur4 Mutant of Arabidopsis Is Partially Defective in the de Nova Synthesis of Uridine Diphospho L-Arabinose, Plant Physiology, Vol. 121, pp 383-389.
ARK	BO	Davey, M.W. et al, 1999, Ascorbate Biosynthesis in Arabidopsis Cell Suspension Culture, Plant Physiology, Vol. 121, pp. 535-543.

EXAMINER

DATE CONSIDERED

	
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